The Role of Health Professionals in the Prevention of Smoking- and Alcohol-Related Harms: Application of the Theory of Planned Behaviour to Work Behaviours

by

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A thesis submitted to Flinders University for the degree of Doctor of Philosophy

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February 2007
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ABSTRACT

Professional practice change and the transfer of research into practice are critical issues for the public health field. The program of research presented here investigated the potential for practice change in dental hygienists’ and Emergency Department nurses’ provision of brief interventions targeting smoking (of tobacco) and alcohol consumption respectively. Smoking and risky alcohol consumption are two high prevalence public health issues that have a substantial impact on the burden of death and illness in Australia.

Research on dental hygienists’ and nurses’ uptake of these interventions is limited and has largely focused on descriptions of perceived barriers. Little research has been conducted on the attitudes and motivations of health professionals to engage in these interventions. The present research was designed to address that gap. Specifically, two behaviours by dental hygienists and Emergency Department nurses were investigated: identification of patients at risk and provision of assistance to such patients.

The program of research applied the Theory of Planned Behaviour to these behaviours in order to:

1) examine the role of dental hygienists and Emergency Department nurses in the provision of brief interventions for smoking and alcohol consumption respectively,

2) assess the ability of the Theory of Planned Behaviour to understand and predict health professionals’ identifying and assisting behaviour,
3) assess the ability of the theory to account for the influence of organisational factors on workers’ behaviour, and

4) design and evaluate a Theory of Planned Behaviour-based professional practice change intervention.

This is the first research to apply the Theory of Planned Behaviour to these behaviours, to examine the potential of the theory to account for the influence of organisational factors on workers’ behaviour, and to trial an intervention targeting behaviour in an organisational setting.

The four studies undertaken (see Figure 1) provided a comprehensive application of the Theory of Planned Behaviour.

**Fishbein and Ajzen’s (1975) 3-step methodology**

<table>
<thead>
<tr>
<th>Study 1</th>
<th>Step 1</th>
<th>Study 2a</th>
<th>Qualitative in-depth interviews (22 Hygienists)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Meta-analysis</td>
<td></td>
<td><strong>Study 2b</strong></td>
<td>Qualitative in-depth interviews (22 Nurses)</td>
</tr>
<tr>
<td>(53 studies)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Step 2</td>
<td><strong>Study 3a</strong></td>
<td>Quantitative survey (362 Hygienists)</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>Study 3b</strong></td>
<td>Quantitative survey (125 Nurses)</td>
</tr>
<tr>
<td></td>
<td>Step 3</td>
<td><strong>Study 4</strong></td>
<td>Randomised controlled trial of intervention (65 Hygienists)</td>
</tr>
</tbody>
</table>

*Figure 1. Diagram of studies conducted as part of the PhD program of research.*
In the first study, a meta-analysis of published research examined the ability of the Theory of Planned Behaviour to predict behaviours in an organisational setting. This was the first meta-analysis of studies applying the Theory of Planned Behaviour applications to organisational settings. The findings were comparable to results of a meta-analysis of studies applying the theory to social and health behaviours, supporting the application of the theory to the organisational setting, and also highlighted the potential importance of perceived behavioural control for work behaviours. Studies 2 to 4 were designed to follow Ajzen and Fishbein’s (1975) 3-step methodology for applying the theory.

In Study 2, the behavioural, normative, and control beliefs held by dental hygienists and Emergency Department nurses, and potentially relevant organisational factors, such as workload and available support, were identified through in-depth qualitative interviews.

Study 3 measured the ability of the Theory of Planned Behaviour to predict dental hygienists’ and Emergency Department nurses’ frequency of identifying and assisting. The theory was most successful in predicting dental hygienists’ frequency of assisting patients who smoke. The self-efficacy dimension of perceived behavioural control was the strongest predictor of this behaviour. The findings for Emergency Department nurses indicated that subjective norms were an important predictor of intentions to identify and assist patients. The Theory of Planned Behaviour accounted for the influence of organisational factors on behaviour for both dental hygienists and nurses.

Study 4 involved a randomised controlled trial which evaluated a professional intervention targeting dental hygienists’ assistance of patients who smoke. Trends
indicated potential benefits of the intervention, but overall no significant changes in dental hygienists’ role adequacy, role legitimacy, and targeted control beliefs emerged. This outcome was attributed to ceiling effects and the influence of a media campaign that coincided with the intervention.

The research presented here provides partial support for the application of the Theory of Planned Behaviour to professional practice change efforts. Specifically, the ability of the theory to explain the impact of organisational factors and identify variables most predictive of behaviour may provide valuable insight for prioritising future professional practice change efforts.
DECLARATION

I certify that this thesis does not incorporate without acknowledgment any material previously submitted for a degree or diploma in any university; and that to the best of my knowledge and belief it does not contain any material previously published or written by another person except where due reference is made in the text.

Toby Freeman
ACKNOWLEDGEMENTS

I would like to thank my supervisors, Professor Ann Roche, Dr. Paul Williamson, Dr. Ken Pidd, and Dr. Natalie Skinner for their dedicated and generous supervision. All four have contributed greatly to my professional development.

I would like to acknowledge the financial support of the South Australian Department of Health, the Australian Government Department of Health and Ageing, the National Centre for Education and Training on Addiction (NCETA), Flinders University, and the School of Psychology, Flinders University. I would also like to thank the staff of NCETA for their valuable support over the period of my candidature, including Paul Aylward for guidance on qualitative methodology, Judith Saebel for assistance coding studies in the meta-analysis, and Vinita Duraisingam for her editing of the thesis. I would also like to thank Dr. Julie Mattiske and Dr. Robert Lynd-Stevenson from the School of Psychology, Flinders University, for their input and advice.

Many dental hygienists contributed their time and effort to this research, and I would like to acknowledge the assistance of all dental hygienist participants and various members of the Dental Hygienist Association of Australia (national and state and territory branches) for their assistance: Wendy Sih, Lesley Steele, Virginia Street, Leah Littlejohn, Joan James, Miriam Thomas, Leanne King, and Margie Steffens. I would also like to acknowledge the advice and assistance of QuitSA, in particular David Edwards, and of the Dental Practice Education Research Unit at Adelaide University.

The sixth study would not have been possible without the skill and enthusiasm of Vivien Joseph, who excelled in her role as academic detailer.
Similarly, many Emergency Department nurses took time out of their extremely busy environments to contribute to the research, and I would like to acknowledge all participants and the Emergency Department nurse managers who assisted in reaching nurses. In particular, Professor Charlotte DeCrespigny and the Drug and Alcohol Nurses of Australasia, the Australian College of Emergency Nursing, Nigel Kitto, Amie Browning, Carol Guy, Keirstie Bull, Joy Lyneham, Margaret Crockford, Jill Iliffe and Lyn Olsen provided their very valuable assistance.

Lastly, I would like to thank my wife, Penny Sih, for her guidance and assistance with the qualitative analysis in Study 2, and her patience and support throughout my candidature.


